

Claims

1. A component (10) comprising positioning configurations (16), an optical waveguide (17), a first mirror (14) and a second mirror (15), the two mirrors (14, 15) lying in prolongation of the optical waveguide (17) and the second mirror (15), as seen from the optical waveguide (17), lying behind the first mirror (14).

2. The component according to claim 1, characterized in that the second mirror (15) takes up a much smaller area than the first mirror (14).

3. The component according to claim 2, characterized in that the area of the second mirror (15) projected into a plane perpendicular to the longitudinal axis of the optical waveguide (17) amounts to not more than 1/10 of the projected area of the first mirror (14).

4. The component according to any of the preceding claims, characterized in that the second mirror (15), in a projection into a plane perpendicular to the longitudinal axis of the optical waveguide (17), lies within the area of the first mirror (14).

5. The component according to any of the preceding claims, characterized in that the first and second mirrors are parabolic mirrors (14, 15).

6. The component according to any of the preceding claims, characterized in that the focal point of the second mirror (15), as seen from the optical waveguide, lies behind the focal point of the first mirror (14).

7. The component according to any of the preceding claims, characterized in that the component (10) is provided with a receiving groove (13), having a trapezoidal cross-section, for an optical waveguide and in that the optical waveguide is an optical fiber (17) which has a trapezoidal cross-section in the region of the component (10).

8. The component according to any of the claims 1 to 6, characterized in that the component (10) is provided with a receiving groove (13), having a semi-

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circular cross-section, for an optical waveguide and in that the optical waveguide is an optical fiber (17), which has semicircular cross-section in the region of the component (10).

5 9. A component (20) comprising adjustment configurations (23), an optical transmitter (29) and an optical receiver (25), the transmitter (29) and the receiver (25) being arranged next to one another.

10. The component according to claim 9, characterized in that the receiver (25) is provided on its active surface with a filter (35), which is opaque for the light (S) radiated from the transmitter (29).

10 11. The component according to either of the claims 9 and 10, characterized in that conducting tracks (31) are provided by means of which the receiver (25) and the transmitter (29) can be connected.

15 12. The component according to any of the claims 1 to 11, characterized in that it comprises a gold coating (30) on its outer surface, which coating forms a bondable surface.

13. The component according to any of the claims 1 to 12, characterized in that a copper layer (33) is provided, which serves for heat dissipation.

20 14. The component according to claims 12 and 13, characterized in that the component comprises a starter layer made of nickel (34), to which a copper layer (33) is applied, that applied to the copper layer (33) is a second nickel layer (32) which acts as a separation layer, and in that the gold layer (30) is applied to the second nickel layer.

25 15. An assembly of a component according to any of the claims 1 to 8 and of a component according to any of the claims 9 to 14, characterized in that the two components (10, 20) are precisely aligned relative to each other by means of the positioning and adjustment configurations (16, 23) such that the first mirror (14) can cooperate with the optical receiver (25) and the second mirror (15) with the optical transmitter (29), so that light (E) coupled in via the optical waveguide (17)

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one receptacle (2
mations,
in a suitable way.

- the substrate is metallized in a suitable way,

17. The method according to claim 16, characterized in that each substrate comprises a multitude of mirror surfaces and receptacles, respectively, and the individual assemblies are severed, after the two substrates have been placed one upon the other and glued to each other.